

What is claimed is:

- 1 1. A process for use in a database system, comprising:
2 storing data according to a first user-defined data type in a table;
3 associating at least a first compression routine with the first user-defined data
4 type; and
5 using the first compression routine to compress the data according to the first
6 user-defined data type.
- 1 2. The process of claim 1, further comprising using a second compression routine to
2 compress the data to improve compression efficiency.
- 1 3. The process of claim 2, wherein using the first and second compression routines
2 comprises using user-defined data type methods.
- 1 4. The process of claim 3, wherein using the user-defined data type methods
2 comprises using methods built in with the first user-defined data type.
- 1 5. The process of claim 1, wherein using the first compression routine comprises
2 using a first compression method built in with the first user-defined data type.
- 1 6. The process of claim 5, further comprising providing a user-defined method
2 executable to invoke the first compression method.
- 1 7. The process of claim 6, further comprising invoking the user-defined method to
2 invoke a second compression method built in with the first user-defined data type.
- 1 8. The process of claim 7, wherein invoking the user-defined method comprises
2 invoking the user-defined method to alter compression efficiency.

1 9. The process of claim 1, further comprising providing a second user-defined data
2 type built upon the first user-defined data type.

1 10. The process of claim 9, further comprising storing a first type of data using the
2 first user-defined data type and storing a second type of data using the second user-
3 defined data type.

1 11. The process of claim 10, further comprising using a second compression routine
2 to compress the second type of data.

1 12. The process of claim 9, further comprising inheriting at least a data structure and
2 at least a built-in method from the first user-defined data type into the second user-
3 defined data type.

1 13. An article comprising at least one storage medium containing instructions that
2 when executed cause a system to:
3 store data according to a first user-defined data type; and
4 associate a first compression routine with the first user-defined data type for
5 compressing the data.

1 14. The article of claim 13, wherein the instructions when executed cause the system
2 to associate a second compression routine with the first user-defined data type, the first
3 and second compression routines providing different compression algorithms.

1 15. The article of claim 14, wherein the instructions when executed cause the system
2 to provide the first compression routine as a method built in with the first user-defined
3 data type.

1 16. The article of claim 15, wherein the instructions when executed cause the system
2 to provide the second compression routine as a method built in with the first user-defined
3 data type.

1 17. The article of claim 13, wherein the instructions when executed cause the system
2 to associated a first data structure with the first user-defined data type, the first data
3 structure to indicate a type of compression applied on a data object.

1 18. The article of claim 17, wherein the instructions when executed cause the system
2 to associate a second data structure with the first user-defined data type, the second data
3 structure to indicate a percentage amount of compression of the data object.

1 19. The article of claim 18, wherein the instructions when executed cause the system
2 to access the first and second data structures of the data object when accessing the data
3 object.

1 20. The article of claim 19, wherein the instructions when executed cause the system
2 to store the data object in a relational table.

1 21. The article of claim 19, wherein the instructions when executed cause the system
2 to store the data object in a relational table distributed across multiple access modules.

1 22. The article of claim 20, wherein the instructions when executed cause the system
2 to provide a second user-defined data type built upon the first user-defined data type.

1 23. The article of claim 13, wherein the instructions when executed cause the system
2 to provide a second user-defined data type built upon the first user-defined data type.

1 24. The article of claim 23, wherein the instructions when executed cause the system
2 to inherit the first compression routine from the first user-defined data type into the
3 second user-defined data type.

1 25. The article of claim 24, wherein the instructions when executed cause the system
2 to:
3 associate a second compression routine with the first user-defined data type; and
4 inherit the second compression routine from the first user-defined data type into
5 the second user-defined data type.

1 26. The article of claim 25, wherein the instructions when executed cause the system
2 to:
3 store a first type of data using the first user-defined data type; and
4 store a second type of data using the second user-defined data type.

1 27. A database system, comprising:
2 a storage system to store at least a table;
3 a plurality of compression routines to apply respective different compression
4 algorithms; and
5 a controller adapted to invoke one of plurality of compression routines to
6 compress data stored in the table.

1 28. The database system of claim 27, wherein the table includes a relational table and
2 the data is stored in a first attribute of the relational table.

1 29. The database system of claim 28, wherein the first attribute is according to a first
2 user-defined data type.

1 30. The database system of claim 29, wherein the plurality of compression routines
2 are methods built in with the first user-defined data type.

1 31. The database system of claim 30, the storage system to store a second table
2 having a second attribute according to a second user-defined data type built upon the first
3 user-defined data type.

1 32. The database system of claim 27, wherein the controller is adapted to invoke
2 another one of the compression routines to alter compression of the data.

1 33. The database system of claim 32, wherein the controller is adapted to invoke
2 another one of the compression routines in response to a Structured Query Language
3 UPDATE statement.

1 34. The database system of claim 33, wherein the controller comprises a user-defined
2 method.

1 35. The database system of claim 34, wherein the plurality of compression routines
2 comprise methods built in with the first user-defined data type,
3 the user-defined method executable to invoke the methods built in with the first
4 user-defined data type.

1 36. The database system of claim 27, further comprising a plurality of access modules
2 adapted to manage access to respective portions of the storage system.

1 37. The database system of claim 36, wherein the table is distributed across multiple
2 access modules.